ABSTRACT

A virtual gateway bridges voice and related signaling traffic between multiple endpoints behind the same or different Network Address Translation devices or firewalls or neither. The virtual gateway also serves as a mixer when used in a teleconferencing mode, which handles a number of endpoints that are behind the same Network Address Translation device or firewall or not. In this mode, the virtual gateway mixes packets on its incoming side with other packets on its incoming side so that all outgoing packets include voice (or other) data from all sources. The embodiments herein may be used with Voice over IP (VoIP) connections and applications, as well as other applications in which two or more endpoints are attempting to establish a communications channel and their IP addresses are otherwise not suitable for the communications application.